

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015605**Date Inspected:** 09-Jul-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:****CWI Present:****Yes No****Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

OBG Bay 04, Deck Panel 13CE-DP3105-001

This QA inspector performed conventional Ultrasonic Testing (UT) Inspection on deck panel tack weld areas. The inspection is preliminary prior to using the phased array (PAUT) testing system to verify indications found with conventional Ultrasonic testing. QA inspector performed UT on deck panel 13CE-DP3105-001, 09 ribs, 18 welds, 138 total tack welds inspected.

Weld 001 scanned 9 locations with 0 indications.

Weld 002 scanned 9 locations with 0 indications.

Weld 003 scanned 9 locations with 0 indications.

Weld 004 scanned 9 locations with 0 indications.

Weld 005 scanned 9 locations with 3 indications.

Weld 006 scanned 9 locations with 1 indication.

Weld 138 scanned 9 locations with 0 indications.

Weld 139 scanned 9 locations with 0 indications.

Weld 173 scanned 9 locations with 1 indication.

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

Weld 174 scanned 9 locations with 0 indications.  
Weld 140 scanned 9 locations with 5 indications.  
Weld 141 scanned 9 locations with 1 indication.  
Weld 176 scanned 5 locations with 1 indication.  
Weld 177 scanned 5 locations with 1 indication.  
Weld 178 scanned 5 locations with 0 indications.  
Weld 180 scanned 5 locations with 0 indications.  
Weld 179 scanned 5 locations with 0 indications.  
Weld 181 scanned 5 locations with 1 indication.

OBG Bay 04, Deck Panel 13CE-DP3105-001

QA Inspector performed initial Phased Array Ultrasonic Testing (PAUT) following the guide lines of UT procedure titled “Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds, # UT 04-0120F4 PJP Rib Weld” after conventional UT was performed on tack welded areas of the Partial Joint Penetration (PJP) welds joining u-ribs to deck plate. The deck panels examined are as follows:

DP3105-001: 5 tack weld location found compliant and 9 tack weld location found non-compliant.

Tack weld locations found non-compliant are marked on U-rib and deck plate for ZPMC’s reference for repair. See Caltrans U-rib to Deck Panel- Tack Weld Assessment sheets dated 9th July, 2010 for further information on PAUT inspections.

OBG Bay 04, Deck Panel 13CE-DP3100-001

QA Inspector performed initial Phased Array Ultrasonic Testing (PAUT) following the guide lines of UT procedure titled “Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds, # UT 04-0120F4 PJP Rib Weld” after conventional UT was performed on tack welded areas of the Partial Joint Penetration (PJP) welds joining u-ribs to deck plate. The deck panels examined are as follows:

DP3100-001: 6 tack weld location found compliant and 9 tack weld location found non-compliant.

Tack weld locations found non-compliant are marked on U-rib and deck plate for ZPMC’s reference for repair. See Caltrans U-rib to Deck Panel- Tack Weld Assessment sheets dated 9th July, 2010 for further information on PAUT inspections.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

---

## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang : 15000422372, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Gaikwad,Umesh	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

---